

MTPX Plus 6400 Series

MTP TWISTED PAIR MATRIX
SWITCHER FOR RGBHV, VIDEO,
AUDIO, AND RS-232

- ▶ Available in 5 different I/O sizes, from 48x48 to 64x64
- ▶ Dynamic skew equalization
- ▶ RS-232 insertion from the Ethernet port to individual or all MTP outputs
- ▶ Local RS-232 insertion ports
- ▶ EDID Minder®
- ▶ Video level and peaking compensation
- ▶ Local high resolution video inputs and outputs
- ▶ Switchable video pre-peaking on all outputs
- ▶ Local audio output volume adjustment and muting
- ▶ Ethernet monitoring and control
- ▶ Compatible with Extron MTP Series twisted pair products



The MTPX Plus 6400 Series simplifies the design and integration of complex twisted pair matrix switching systems by offering advanced, integration-friendly features that dramatically reduce costs associated with rack space, cabling, and installation. The MTPX Plus 6400 Series is available in 5 different I/O sizes, from 48x48 to 64x64, and expands on the industry-leading features of the MTPX Plus Series with new advanced features. The MTPX Plus 6400 Series is part of the most comprehensive twisted pair product line in the A/V industry.



Extron® Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **MTPX Plus 6400** Series represents the next level of large-scale twisted pair matrix switching, building on the success of the MTPX Plus Series product line. The MTPX Plus 6400 Series simplifies the design and integration of complex twisted pair matrix switching systems by offering advanced, integration-friendly features that dramatically reduce costs associated with rack space, cabling, and installation. The MTPX Plus 6400 Series is available in 5 different I/O sizes, from 48x48 to 64x64. In addition to offering all of the same features found in the MTPX Plus Series, the MTPX Plus 6400 Series provides EDID Minder® for local inputs and outputs, RS-232 insertion from the Ethernet port to individual or all MTP outputs, and switchable video pre-peaking on all outputs.

When paired with Extron MTP U Series Universal Transmitter and Receivers, MTPX Plus Series Twisted Pair Matrix Switchers allow VGA, component video, S-video, and composite video, along with audio or RS-232 control signals, to be sent over a single CAT 5-type cable and output on the appropriate connector at the display.

Additional features of the MTPX Plus 6400 Series include dynamic skew equalization to maintain RGB color alignment at all times, video level and peaking compensation for brighter and sharper images, local RS-232 insertion ports to eliminate the need for control system wiring to remote displays, local high resolution video inputs and outputs to reduce the need for additional transmitters and receivers, and local audio output volume adjustment and muting without the need for preamplifiers in many A/V systems.

Dynamic Skew Equalization

Dynamic skew equalization on all inputs and outputs ensures that CAT 5-type cable skew is eliminated, regardless of the combination of input/output cable lengths selected. This feature enables the necessary skew compensation to be configured during installation for each input/output combination. These configurations are then stored in memory and applied automatically during operation. Since the skew compensation is in the matrix switcher, skew compensation is not required in the receivers.

RS-232 Insertion From Ethernet Port to individual or All MTP Outputs

RS-232 via the Ethernet port allows direct insertion of bidirectional serial control to individual or multiple MTP outputs. This feature simplifies control since a single communication port can control multiple remote displays. It also reduces cabling, installation time and cost, and control system RS-232 communication port requirements.

EDID Minder®

The MTPX Plus 6400 Series features EDID Minder, a selectable feature that enables automatic and continuous management of the EDID information between the local input sources and the local displays. EDID Minder automatically captures and stores EDID information from the display. It also can generate emulated EDID data to match the native resolution of the display. By maintaining continuous EDID communication with all local sources, EDID Minder ensures that the source powers up properly and reliably outputs content to the display.

FEATURES

- ▶ **Available in 5 different I/O sizes, from 48x48 to 64x64**
- ▶ **Dynamic skew equalization** – Adjustments are stored in memory for each input and output, maintaining RGB color alignment at all times.
- ▶ **RS-232 insertion from the Ethernet port to individual or all MTP outputs** – Allows direct insertion of bidirectional serial control to multiple or individual MTP outputs.
- ▶ **Local RS-232 insertion ports** – RS-232 input ports eliminate the need for control system wiring to remote displays.
- ▶ **EDID Minder®** – Automatic and continuous EDID management between the local sources and the local displays.
- ▶ **Video level and peaking compensation** – Actively compensates for input signal attenuation for various cable lengths, resulting in a brighter and sharper image.
- ▶ **Local high resolution video inputs and outputs** – Accept input from local video sources without the need for additional transmitters and receivers.
- ▶ **Switchable video pre-peaking on all outputs** – Provides additional compensation for optimal performance on the longest cable runs.
- ▶ **Local audio output volume adjustment and muting** – Eliminates the need for preamplifiers in many A/V systems.
- ▶ **Hot-swappable primary and redundant power supplies** – Ensure reliable system operation and maximizes system operating time.
- ▶ **Two AC power inputs**
- ▶ **Enhanced QS-FPC™ - QuickSwitch Front Panel Controller**
- ▶ **Front panel USB configuration port**
- ▶ **Ethernet monitoring and control** – Enables Web-based remote management, monitoring, and control.
- ▶ **Tri-color, backlit buttons accept custom window labels**
- ▶ **Local audio inputs and outputs** – Support local stereo audio sources and provide unbalanced line level mono audio output for processing or distribution.
- ▶ **Audio input gain and attenuation** – Eliminates noticeable differences in volume when switching between sources.
- ▶ **RS-232 and RS-422 control**
- ▶ **Rack-mountable 10U, full rack width metal enclosure**
- ▶ **Includes MTP Signal Generator, 70-729-01** – Used for automatic setup of input level/peaking and skew adjustments to ensure optimal system performance.
- ▶ **Compatible with Extron MTP Series twisted pair products** – Works with all MTP Series transmitters and receivers, including the MTP U T A D Universal Transmitter and MTP U R Series Universal Twisted Pair Receivers.

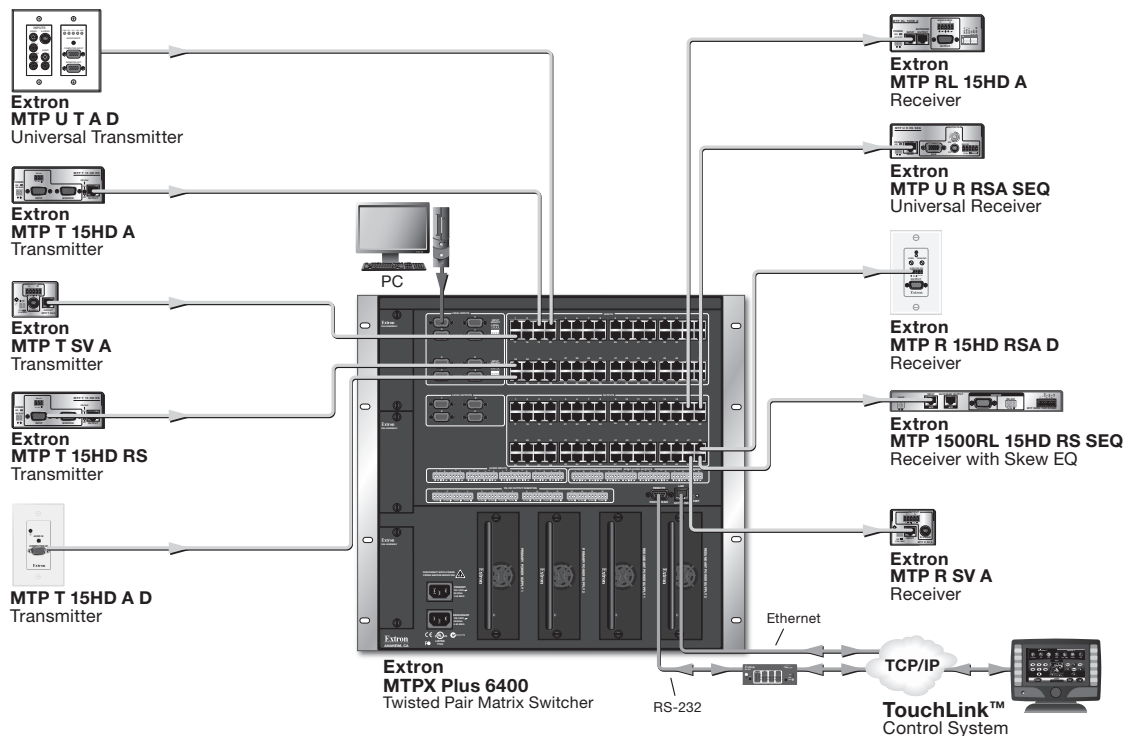
SPECIFICATIONS

VIDEO	
Routing	
MTPX Plus 4848	48 x 48 matrix, 8 x 4 local
MTPX Plus 4864	48 x 64 matrix, 8 x 4 local
MTPX Plus 6432	64 x 32 matrix, 8 x 4 local
MTPX Plus 6448	64 x 48 matrix, 8 x 4 local
MTPX Plus 6464	64 x 64 matrix, 8 x 4 local
VIDEO INPUT — LOCAL	
Number/signal type	8 analog RGBHV, RGBS, RGSB, RSGBs, component video (bi-level and tri-level), S-video, composite video
Connectors	8 female 15-pin HD
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video
Minimum/maximum levels	Analog: 0.3 V to 1.45 Vp-p with no offset at unity gain
Impedance	75 ohms $\pm 5\%$
Horizontal frequency	15 kHz to 130 kHz
Vertical frequency	30 Hz to 150 Hz
VIDEO INPUT — main (see transmitters' output specifications)	
Number/signal type	48 or 64 proprietary analog signals
Connectors	48 or 64 female RJ-45 connectors
VIDEO OUTPUT — LOCAL	
Number/signal type	4 analog RGBHV, RGBS, RGSB, RSGBs, component video (bi-level and tri-level sync), S-video, composite video
Connectors	4 female 15-pin HD
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video
VIDEO OUTPUT — main (see receivers' input specifications)	
Number/signal type	32, 48, or 64 proprietary analog signals
Connectors	32, 48, or 64 female RJ-45 connectors
SYNC — LOCAL INPUTS AND OUTPUTS ONLY	
Input type	RGBHV, RGBS, RGSB, RSGBs
Output type	See receiver specifications (on Web site).
Standards	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level	3.5 V to 5.5 VDC
Output level	See receiver specifications (on Web site).
Polarity	Positive or negative (selectable)
AUDIO	
Routing	
MTPX Plus 4848	48 x 48 mono matrix, 8 x 8 local
MTPX Plus 4864	48 x 64 mono matrix, 8 x 8 local
MTPX Plus 6432	64 x 32 mono matrix, 8 x 8 local
MTPX Plus 6448	64 x 48 mono matrix, 8 x 8 local
MTPX Plus 6464	64 x 64 mono matrix, 8 x 8 local
Gain	Unity: 0 dB ± 2 dB with a 600 ohm load, single ended
Frequency response	20 Hz to 20 kHz, ± 1 dB
AUDIO INPUT — LOCAL	
Number/signal type	8 stereo, balanced/unbalanced
Connectors	(8) 3.5 mm captive screw connectors, 5 pole
Impedance	>10k ohms balanced/unbalanced, DC coupled
Nominal level	+4 dBu (1.23 Vrms)
Maximum level	>+18 dBu, (balanced/unbalanced) at 1% THD+N
AUDIO INPUT — main (see transmitters' output specifications)	
Number/signal type	48 or 64 proprietary analog signals
Connectors	48 or 64 female RJ-45 connectors

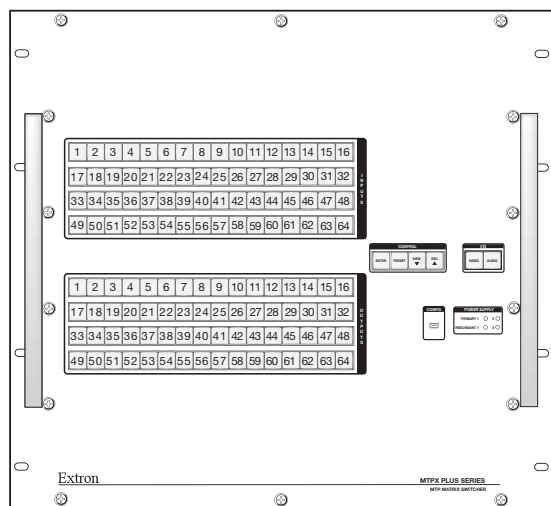
AUDIO OUTPUT — LOCAL		
Number/signal type	8 dual mono, balanced/unbalanced	
Connectors	(8) 3.5 mm captive screw connectors, 5 pole	
AUDIO OUTPUT — main (see receivers' input specifications)		
Number/signal type	32, 48, or 64 proprietary analog signals	
Connectors	32, 48, or 64 female RJ-45 connectors	
CONTROL/REMOTE — SWITCHER HOST CONTROL		
Serial host control port	1 bidirectional RS-232 or RS-422, rear panel 9-pin female D connector	
Baud rate and protocol	9600 (default), 19200, 38400, 115200 baud, adjustable; 8 data bits, 1 stop bit, no parity	
USB control ports	1 front panel female mini USB B	
USB standards	USB 2.0, USB 1.1, USB 1.0 compatible	
Ethernet control port	1 RJ-45 female	
Ethernet data rate (for network communication)	10/100Base-T, half/full duplex with autotdetect	
Ethernet protocol	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, SMTP, Telnet	
CONTROL/REMOTE — external device		
Serial control ports	16 RS-232, 3.5 mm captive screw connectors, 3 pole	
Baud rate and protocol	Up to 38400 baud, 9600 baud (default); 5-8 data bits; 1 or 2 stop bits; odd, even, or no parity; XON, XOFF, or no flow control	
CONTROL/REMOTE — RS-232 insertion from Ethernet port		
Serial control ports	UART, uni- or bi-directional, on female RJ-45 connectors shared with twisted pair output	
6464, 4864 models	64 ports	
6448, 4848 models	48 ports	
6432 model	32 ports	
Baud rate and protocol	Up to 38400 baud, 9600 baud (default); 5-8 data bits; 1 or 2 stop bits; odd, even, or no parity; XON, XOFF, or no flow control	
GENERAL		
Recommended cable type	Shielded or unshielded CAT 5/5e/6/7 or Extron Enhanced Skew-Free™ A/V UTP	
Power	2 or 4*(positive-negative), 100 VAC to 240 VAC, 50-60 Hz; internal, 400 watts each	
6464 model	*A redundant power supply is standard. 402.5 watts at 115 VAC, 60 Hz 392.9 watts at 240 VAC, 50 Hz	
Cooling	Fan, right to left (as viewed from the front panel)	
Thermal dissipation		
6464 model		
115 VAC, 60 Hz	1373.7 BTU/hr	
240 VAC, 50 Hz	1340.6 BTU/hr	
Rack mount	Yes	
Enclosure dimensions	17.5" H x 17.0" W x 16.2" D (10U high, full rack wide) (44.5 cm H x 43.2 cm W x 41.1 cm D) (Depth excludes connectors and handles.)	
Product weight	70 lbs (31.8 kg)	
Shipping weight	80 lbs (37 kg)	
Regulatory compliance		
Safety	CE, c-UL, UL	
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI Class A	
Warranty	3 years parts and labor	
Model	Version Description	Part number
MTPX Plus 6464	64x64	60-1042-01
MTPX Plus 6448	64x48	60-1041-01
MTPX Plus 6432	64x32	60-1040-01
MTPX Plus 4864	48x64	60-1039-01
MTPX Plus 4848	48x48	60-1038-01

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.

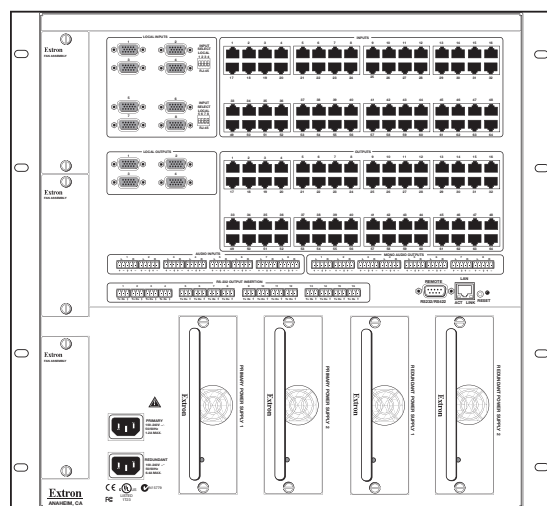
APPLICATION DIAGRAM



PANEL DRAWINGS



Front



Back



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+800.633.9876
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